

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 April 2004 (01.04.2004)

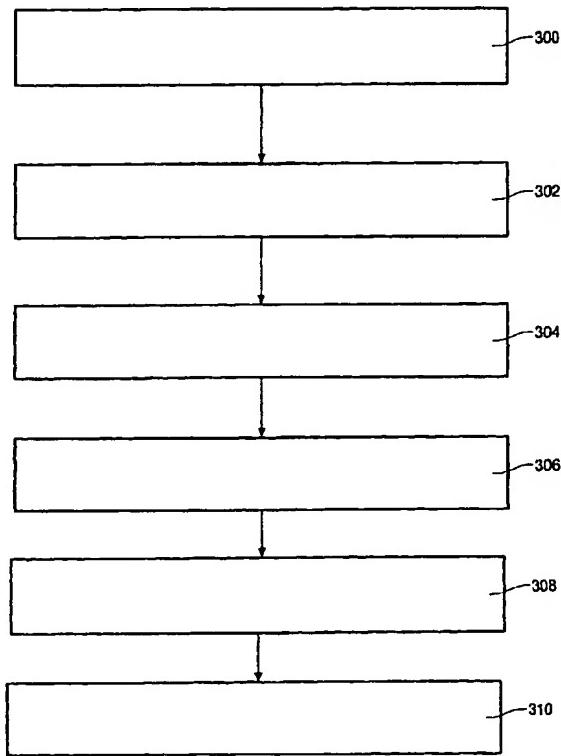
PCT

(10) International Publication Number
WO 2004/027753 A1

- (51) International Patent Classification⁷: G10L 13/06, [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (21) International Application Number: PCT/IB2003/003381 (74) Agent: DULJVESTIJN, Adriaan, J.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (22) International Filing Date: 5 August 2003 (05.08.2003) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
- (26) Publication Language: English
- (30) Priority Data: 02078848.5 17 September 2002 (17.09.2002) EP
- (71) Applicant (*for all designated States except US*): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and (75) Inventor/Applicant (*for US only*): GIGI, Ercan, F.

(Continued on next page)

(54) Title: METHOD OF SYNTHESIS FOR A STEADY SOUND SIGNAL



(57) **Abstract:** The present invention relates to a method of synthesizing a first sound signal based on a second sound signal, the first sound signal having a required first fundamental frequency and the second sound signal having a second fundamental frequency, the method comprising the steps of, a) determining of required pitch bell locations in the time domain of the first sound signal, the pitch bell locations being distanced by one period of the first fundamental frequency, b) providing of pitch bells by windowing the second sound signal on pitch bell locations in the time domain of the second sound signal, the pitch bell locations being distanced by one period of the second fundamental frequency, c) randomly selecting of a pitch bell from the provided pitch bells for each of the required pitch bell locations, d) performing an overlap and add operation on the selected pitch bells for synthesizing the first signal.

WO 2004/027753 A1